

73 RF 14014

EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

93-RF-14014

James K. Hartman
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Transition and Environmental Restoration
DOE, RFO

Attn: R. J. Schassburger

CONSTRUCTION ACTIVITIES IN OR NEAR INDIVIDUAL HAZARDOUS SUBSTANCE SITES -
NMH-586-93

Ref: J. K. Hartman ltr (11739) to N. M. Hutchins and D. W. Ferrera, Construction Activities in the Vicinity of Individual Hazardous Substance Sites at the Rocky Flats Plant, October 20, 1993

In response to the above referenced letter, the following is being submitted:

EG&G Rocky Flats, Inc. Environmental Restoration Management (ERM) completed and approved an Environmental Assessment for Construction Activities (Soils Disturbance Permit #TG048663) on April 7, 1993. The assessment provided background information concerning Individual Hazardous Substance Sites (IHSSs) and specific instructions for EG&G Plant Services to proceed with the Integrated Work Control Program (IWCP) for cleaning drainage ditches in the lump sum area (including the Central Avenue Ditch).

Specific instructions for this construction activity were as follows:

1. All dirt, soil, gravel and rock removed from any of the ditches to be cleaned was to remain on the bank of the ditch and in the immediate area from which they were originally removed.
2. All material was to be spread and incorporated into the banks of the ditch.
3. Soil and/or water samples would not be required for this work. However, EG&G Radiological Engineering will request that radiological screening be required when working in any of the IHSSs involved in this activity (see attached Soils Excavation Permit).

On September 27, 1993, ERM conducted a walkdown tour of several IHSSs within Operable Unit 13 (OU-13) with the Colorado Department of Health (CDH) to delineate sampling locations and rational in accordance with the Phase I RCRA [Resource Conservation and Recovery Act] Facility Investigation/Remedial Investigation (RFI/RI) Work Plan. Both parties observed EG&G Plant Services spreading excavated

IN REPLY TO RFP CC NO:

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7 PARTIAL OPEN

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LTR APPROVALS:

ORIG & TYPIST INITIALS

--46459 (Rev. 7/93)

ADMIN RECORDS

BZ -A-00069 .
SW-A -002702

soils from the Central Avenue Ditch (IHSS 157.1 for OU-13 and adjacent IHSS 172 for OU-8) into areas adjacent to the two large fuel oil tanks located on the southwest corner of Central Avenue and Seventh Street (IHSS 152). The operation was immediately shut down due to the potential of cross contamination from one or more IHSSs to IHSS 152. A thorough review of the operation noted that Plant Services was instructed to spread the ditch spoils into IHSS 152 by EG&G Construction Management without the approval from ERM.

The impact of this action will require additional sampling from one location for analytical parameters required in the OU-13 Work Plan (for IHSS 157.1). Due to the fact that the Central Avenue Ditch (IHSS 157.1) underwent a High Purity Germanium (HPGe) radiological survey both before the disturbance and again afterward and no radiological contamination was observed above background levels in both cases, we do not suggest enlarging the IHSS 157.1 boundary.

In the event that soil sampling results indicate potential cross contamination from one IHSS to another, we recommend that the area be investigated during implementation of OU-12 Integrated Surface Water and Sediment Field Sampling Plan.

Effective no later than December 1, 1993, the following EG&G actions will have taken place to prevent a similar incident from occurring in the future:

1. Memorandum of Understanding (MOU) between EG&G Construction Management and EG&G ERM outlining responsibilities as stated in the draft procedure #1-F20-ER-EMR-EM.001 "Environmental Approval Process for Construction/Excavation Activities on or Near Individual Hazardous Substance Sites".
2. All Environmental Assessments for Construction Activities (Soils Disturbance Permits) involving IHSSs, Potential Areas of Concern (PACs) or Additional Areas of Concern (AACs) will be reviewed by the appropriate ERM Operable Unit Manager. Complete documentation will be available from the ERM Environmental Operations Manager. This process will also be applicable to spills or releases in or near an IHSS, PAC, or AAC. Completed October 12, 1993.
3. ERM Environmental Operations Manager (or designee) will conduct a briefing to EG&G Plant Services personnel clarifying the importance of following proper guidance requirements and stressing the importance when conducting work in or near an IHSS. Completed November 12, 1993.
4. Assign additional ERM oversight to construction projects involving activities in or near an IHSS, PAC, or AAC. Also, include within some IWCPs a hold point where work will stop until the ERM Environmental Operations Manager (or designee) arrives at the site.

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5. Provide for one additional soil sample to be collected during the implementation Phase I RFI/RI Non-Intrusive Investigation For Surficial Soil Sampling - OU-13. The additional analytical cost will be incurred under Work Package No. 61303 "Environmental Support To Plant Operations".

This incident will be reported in the next quarterly update report to the Historical Release Report (HRR) due January 31, 1994. Based on the above data and stated actions, EG&G requests concurrence to re-initiate the ditch cleaning efforts prior to snowfall.

If you have any questions or concerns regarding this response, please contact Nick Demos at extension 6938 or digital page 3842 or Bruce Peterman at extension 8659.



N. M. Hutchins, Acting
Associate General Manager
Environmental Restoration Management
EG&G Rocky Flats, Inc.

NSD:lmw

Attachment:
As Stated

Orig. and 1 cc - J. K. Hartman

cc:

R. H. Birk	-	DOE, RFO
A. H. Pauole	-	" "
M. N. Silverman	-	" "
B. K. Thatcher	-	" "

ENVIRONMENTAL ASSESSMENT FOR CONSTRUCTION ACTIVITIES

Authorization No.: TG048663

Reviewer: Environmental Restoration Management/Facilities Operations
Management (ERM/FOM), T891E, x5949.

Date: April 7, 1993

OBJECTIVE:

Clean Ditches and Culverts Plantwide. This report is to serve as an addendum to add Culvert #13 and the ditches to the report completed June 3, 1992, by Tom Ottensman (see attachment #1).

JOB DESCRIPTION:

See attached.

ENVIRONMENTAL ASSESSMENT:

CULVERT #13:

The proposed construction/excavation involving Culvert #13 (see attachment #2) is not located in an Individual Hazardous Substance Site (IHSS) or Toxic Substance Control Act (TSCA) site.

ERM/FOM does not require sampling of the soil and/or water prior to or during construction/excavation activities.

DITCHES:

Many of the ditches to be dressed and cleaned are located in, or themselves comprise an Individual Hazardous Substance Site (IHSS). Those ditches are summarized below. ERM/FOM requires that all dirt, soil, gravel and rock removed from any of the ditches to be cleaned, remain on the banks of the ditch, in the immediate area from which they were originally removed. This material is to be spread and incorporated into the banks. ERM/FOM does not require sampling of the soil and/or water encountered during the construction/excavation activities.

The ditches paralleling Central Avenue are located in or near the following IHSS's (see attachment #1A):

IHSS #191, OU 13, Hydrogen Peroxide Spill (see attachment #3):

A drum of 35% Hydrogen Peroxide flowed into a culvert at the corner of Fifth Street and Central Avenue. The area of the spill is presently paved.

IHSS #157.1, OU 13, Radioactive Site North Area (see attachment #4):

Contamination associated with the handling and steaming of contaminated rags was observed in the soils around Bldg. 442. This contamination included uranium, beryllium, solvents, and radioactive metal shavings, which could have been released into the Central Avenue Ditch.

IHSS #187, OU 12, Sulfuric Acid Spill (see Attachment #5):

Some 1500 gallons of acid leaked from a tank located east of Bldg. 443, and flowed east. Some of the spill may have entered the Central Avenue ditch east of Bldg. 442.

IHSS #152, OU 13, Fuel Oil Tank 221 Spills (see attachment #6):

Past spills of No. 6 fuel oil from the tanks located on the southwest corner of Central Avenue and Seventh Street have flowed into the Central Avenue ditch.

IHSS #117.3, OU 13, Chemical Storage - South Site (see attachment #7):

Spills from a storage site located at the site of present fuel tanks 221 and 224 consisted of oils containing plutonium.

IHSS #190, OU 13, Caustic Leak (see attachment #8):

Past spills of sodium hydroxide have flowed into the Central Avenue ditch.

IHSS #113, OU 2, Mound Area (see attachment #9):

Contaminated combustible wastes, and organic liquid wastes with uranium and plutonium elements were placed in the Mound Area. The Central Avenue ditch flows through this area.

IHSS #162, OU 14, Radioactive Site - 700 Area Site #2 (see attachment #10):

Some radioactive contamination was detected in an excavation located along Eighth Street and Central Avenue. Some residual contamination may have entered the Central Avenue ditch.

IHSS #172, OU 8, Central Avenue Waste Spill (see attachment #11):

A leaking drum on a truck spilled radioactive contaminated solvents along portions of Central Avenue, some of which may have reached the ditch.

IHSS #108, OU 2, Trench T-1 (see attachment #12):

Drums of depleted uranium chips and lathe coolant were buried in a trench approximately 200 feet long, 15 feet wide, and 5 feet deep. This trench is only a few feet south of the Central Avenue Ditch.

IHSS #153, OU 2, Oil Burn Pit (see attachment #13):

Drums containing oil contaminated with uranium were burned in an open pit located north of Central Avenue and adjacent to the present Central Avenue ditch.

The ditches paralleling Sage Avenue are located in or near the following IHSS's (see attachment #14):

IHSS #128, OU 13, Oil Burn Pit No. 1 (see attachment #15):

Contaminated oil was burned in a pit located north of Bldg. 331, and the pit was later backfilled.

IHSS #134, OU 13, Metal Disposal Site North Area (see attachment #16):

Reactive metals were burned in this area, part of which is now covered by Sage Avenue.

IHSS #156.1, OU 14, Bldg. 371 Parking Lot (see attachment #17):

At one time contaminated soils may have been piled in the area now covered by the 371 parking lot.

IHSS #186, OU 13, Valve Vaults 11, 12, and 13 (see attachment #18):

Process wastes consisting of Oakite, solar pond water, and various radioactive acidic liquids have leaked into valve boxes and the surrounding soils. Some of

this contamination could have entered the ditch along the east side of Bldg. 371 parking lot.

Potential Area of Concern (PAC) #300-707, Sanitizer Spill (see attachment #19):

Approximately three gallons of sanitizer consisting of water and formaldehyde were spilled on the shoulder of the road at Sixth Street and Sage Avenue.

The ditches paralleling Seventh Street (north of Central) and 51 Drive are located in the following IHSS's (see attachment #20):

IHSS #117.2, OU 13, Middle Site Chemical Storage (see attachment #21):

Leaks and spills in this area have consisted of acids, oils, soaps, solvents, beryllium scrap, and aluminum nitrate. Any of these contaminants could have entered the drainage ditches.

IHSS #158, OU 13, Radioactive Site - Bldg. 551 (see attachment #22):

Residual contamination from leakage of waste boxes loaded onto railroad cars in the vicinity of Bldg. 551 could be present in the drainage ditches. Uranium is the contaminating constituent.

IHSS #169, OU 13, Waste Drum Peroxide Burial (see attachment #23):

Hydrogen Peroxide spills drained into a culvert at the corner of Fifth and Central Avenue, were diluted with water and buried.

The ditches paralleling Cottonwood Avenue, 44 Drive, and Seventh Street south of Central Avenue are located in the following IHSS's (see attachment #24):

IHSS #157.2, OU 12, Radioactive Site South Area (see attachment #25):

Numerous incidents of contamination releases are associated with the area around Bldg. 444. These contaminants include uranium, beryllium, solvents, and oils. The drainage ditches around the area could contain these contaminants.

IHSS #189, OU 12, Nitric Acid Tanks (see attachment #26):

Nitric acid spills have occurred in the area of the railroad tracks east of Bldg. 444, and may have contaminated soils since washed into the drainage ditches.

IHSS #160, OU 14, Radioactive Site - 444 Parking Lot (see attachment #27):

Uranium and plutonium, as well as oils and solvents, have previously been stored in the area now utilized as the 444 parking lot; and may have entered the drainage ditches east of the lot.

IHSS #136.2, OU 12, Cooling Tower Pond East of Bldg. 444 (see attachment #28):

Cooling tower cleansers were contained in ponds east of Bldg. 444 and allowed to evaporate, at which time the ponds were backfilled. The cleaning agents may have contained chromium and lithium.

IHSS #117.3, (see attachment #7 above).

WETLANDS AND ENDANGERED SPECIES:

Not applicable, per Claire Reno, NEPA Division.